

AMERICAN  
ESTABLISHED  
1861  
BEE JOURNAL  
OLDEST  
BEE PAPER  
AMERICA

THOMAS G. NEWMAN, Editor.



Vol. XXIII. July 13, 1887. No. 28.

**I Live for those who love me,**  
For those who know me true,  
For the heaven that smiles above me,  
And waits my coming too;  
For the right that lacks assistance,  
For the wrong that needs resistance,  
For the future in the distance,  
And the good that I can do.

**The Report of the second year's operations of the National Bee-Keepers' Union is published, and has been sent to all members. Others can obtain a copy free of cost at this office.**

**Back Numbers of the BEE JOURNAL for this year are getting scarce. If any of our new subscribers want them, they should order them soon, or we may not be able to supply them. Last fall we had to refuse many applications for them, as they were all gone in September. Say so at once, if you want them.**

**Mr. Ivar S. Young, of Christiania, Norway, editor of the Norwegian bee-periodical, intends to visit America about the end of August, in the interest of practical and progressive apiculture. He would like to visit some apiaries while here. Invitations may be addressed to this office. A visit from Mr. Young will be quite an honor as well as a great pleasure. He speaks English as well as his own language.**

**White Clover and Basswood have not yielded over one-fourth of the usual crop of honey on an average this season, on account of the severe drouth. The copious rains of the past week, which have extended nearly all over the Northwest, have materially improved the prospects for a good crop of fall honey. Swarms have not exceeded 10 per cent. This is our estimate from the reports which have been received thus far. We want to caution all who may have honey to sell, not to put it upon the market until after the hot weather—then the prices will naturally advance.**

**That Misnomer a "Bore."**—Mr. G. W. Demaree appears to have put on his "war paint," and already has taken the "war path" on the naming (or misnaming) of extracted honey. In the *Bee-Hive* for July he remarks as follows:

City people are used to high-sounding misnomers, but not so in the rural districts. This class of bee-keepers are going to kick like blazes when they see the high-sounding misnomer slipping away. Mr. Newman, at the head of the leading bee paper of the country, has showed his shining metal already. "Extracted" will die hard, but it must go if its death throes shakes the earth. We must batter away till foolish sentimentality gives way to common sense and common interest. Let us who have found the misnomer a bore to us, and an injury to our pursuit, drop the name "extracted," as Mr. Pinkerton has done, and very soon our numbers will increase, and a more appropriate name for honey out of the comb will take its place.

There is one thing morally certain, time has shown pretty clearly that if all the admirers of the name "extracted" were to go out into the world "two and two" and preach "extracted honey" till the "tattoo of life" was beaten away, the world would still look at the whole thing as a fraud, and rightly, because the name "extracted honey" itself is a fraud.

This statement of the case is very unfair, ungenerous, unkind and untrue. Mr. Demaree knows very well that we have never even defended the term "extracted" as a name for "honey out of the comb," much less have we shown our "shining metal" to fight for it! and we hereby challenge him to show a sentence of ours to substantiate his assertion!

On the other hand, while we use the word "extracted" (because it is the best we have so far), we have often objected to it, as we did last week on page 421. On page 291 we used this language:

Until a better name—one that can be truthfully applied to it—can be found or invented, we must stick to the name "extracted honey." Not that it is unobjectionable, but it is the best that has been presented so far? The chief objection to it is the fact that there are now so many "extracts" on the market, and some people think that this is the "extract of honey"—not the real thing! We would like a change—but it must be also an improvement!

Had Brother Demaree said that we objected to his pet name, "liquid," that would have been true, for this was our argument on page 291:

The only objection to calling it "liquid honey" is the fact that very soon after it is taken from the combs, it granulates, and then it is not a liquid! As well might you call ice liquid water! as to call this candied-sweet liquid honey! It would be an unfortunate misnomer!

We fully agree with Mr. Demaree that "foolish sentimentality" must "give away to common sense"—even if it be liquid sentiment!

If he wants some one with gleaming steel to fight with over the name "extracted," he must find some other man—some new man—we are now too old for that! Besides, we have placed ourself on record, over and over again, as looking for a new name for "honey taken out of the comb," and even last week used this language which is both plain, positive, and to the point:

True, Bro. Demaree, the word extracted is objectionable, as we stated on page 291. We want a better name, and must discuss the appropriateness of such names as are used, whether proposed or not! Liquid is not the word—will not be acceptable—and will not be adopted. Bro. Demaree, will

you please give us something better, and then we will give you in return a rousing "vote of thanks." We want a change—but it must be for the better.

We much prefer to call honey out of the comb, simply "Honey," and that not taken out, "Honey in the Comb." Now will some one else try to suggest a new name?

**A Protest.**—Mr. L. Highbarger, of Adeline, Ill., writes for publication the following:

I see that the notice is published calling a union convention in Chicago of the "North American" and "Northwestern" Societies of bee-keepers Nov. 16 to 18, 1887.

Now, as a member of both associations I protest against that time as being unsuitable, for the reason it will come when we should be putting our bees into winter quarters; that is, in the last half of November.

Another reason: There are quite a number of farmers who keep bees, and could not attend, for the reason it will be in the corn harvest.

There are a great many other objections that I could enumerate. Why not hold it in the month of October? It is not a busy time, and is a much more pleasant time of the year. We can get reduced rates during the Chicago Exposition.

I want to hear from members of both associations. Let them speak out and say which would be the most preferable time.

The reason for selecting Nov. 16 to 18 was that in the second week of the "Fat Stock Show" there would be reduced rates on railroads; but if this time is seriously objectionable, the time of the Exposition might be selected, which is from Sept. 7 to Oct. 22. Another reason for low railroad fares then, is that in October there is to be a Grand National Military Encampment and Jubilee in honor of the fiftieth anniversary of the incorporation of Chicago as a city.

Any time will suit us. We only desire to have it at the most convenient time for beekeepers generally. The officers of the societies will no doubt be glad to accommodate all, or as nearly so as possible. So let there be a shower of postal cards stating preferences. You may send them to this office, and we will present the result to the President and Secretary. Remember the majority rules; and if you do not act on this suggestion, you must not complain at the result. Now state your views on this matter at once.

**Forgive them;** they know not what they do.—The anti-bee craze has set in, and is sweeping over the entire country. Every day we hear of a new case of expulsion or trouble of some kind as the result of ignorance, on the part of the persecutors, of the great good done by bees to fruit. This reminds us of a story. An Indiana farmer, who told his boys to burn every bumble-bee's nest they found on the farm, and who was complaining at the failure of his clover seed crop, was surprised when Maurice Thompson, the naturalist, said: "That is why your clover seed fails you. Bumble-bees make your clover seed." It is a fact that a strong nest of bumble-bees in a big clover field is worth \$20 to the owner; for these insects fertilize the blossoms, thereby insuring a heavy crop of seed. In Australia there were no bumble-bees of our kind, and they could not raise clover seed there until they imported some bees.

## QUERIES

With Replies thereto.

[It is quite useless to ask for answers to Queries in this Department in less time than one month. They have to wait their turn, be put in type, and sent in about a dozen at a time to each of those who answer them; get them returned, and then find space for them in the JOURNAL. If you are in a "hurry" for replies, do not ask for them to be inserted here.—Ed.]

### Vessel for Caking Beeswax.

**Query 442.**—What is the best vessel to cake wax in when rendering comb? My old oven spoiled my wax, two-thirds of it being quite red when taken out, but turned dark afterward. I shipped a lot of it to a firm, and they said it was badly burned, and paid me for dark wax. One cake was melted in an iron vessel, and it was the reddest and best cake in the lot, having been taken out of the vessel the very morning it was shipped.—A. B., Texas.

A good, bright tin-pan.—H. D. CUTTING.

I use a flaring tin vessel for caking wax in.—G. M. DOOLITTLE.

Four-cornered tin-pans give the best shape for compactness in shipping.—J. P. H. BROWN.

Iron gives wax a dark color. New tin is as good as anything.—W. Z. HUTCHINSON.

I cake wax in tin dishes. Make sure that no iron is exposed to the wax.—JAMES HEDDON.

Flaring, or funnel-shaped tin vessels. Those that we prefer are 12 inches high and 14 inches in diameter at the top.—DADANT & SON.

Any basin or pan serves well. I would advise all to use solar wax-extractors. Then the wax is surely all right.—A. J. COOK.

I suspect your oven is all right, but it must not be allowed to get too hot. Probably any vessel that will hold the hot wax will do, if it is clean.—C. C. MILLER.

I have had so little experience in rendering wax that I am unable to answer, and will leave it to those who have made a business of so doing.—J. E. POND.

I use pressed tin-pans a little wider at the top than at the bottom, so that the cakes of wax will come out easily. Keep them clean, and your wax will not be injured with iron rust. The "red rust" could have been removed before you sold the wax, by melting the wax in a kettle of clean hot water; the "rust" will separate from the wax and go to the bottom, and the wax will "cake" on top of the water. There is nothing equal to a solar wax-separator, in my opinion. There is no method known to me that will preserve the color and quality of the wax like a properly made and properly handled solar wax-separator.—G. W. DEMAREE.

Any clean, bright tin-pan will do if it flares at the top. An iron vessel will generally spoil melted wax when put into it.—THE EDITOR.

### Bees that Turn Black and Die.

**Query 443.**—Are bees diseased when they turn black, begin quivering, and go off or die? If so, what ails them, and how do you cure it? The brood is not affected. It is the old or middle-aged bees that are troubled.—Tennessee.

I guess they are simply superannuated.—A. J. COOK.

It is constipation, caused by their previous suffering by winter confinement. There is no remedy.—DADANT & SON.

I could tell better if I could see the bees.—H. D. CUTTING.

This is a question to which I would like a satisfactory answer myself.—G. M. DOOLITTLE.

I think it is what some have called the "nameless" bee-disease. Change the queen.—W. Z. HUTCHINSON.

This question is indefinite. If by "turning black" is meant bees that have had their hair gnawed off by other bees, and look glossy black, they are not diseased.—J. P. H. BROWN.

I have had no experience with what they term the "nameless bee-disease." It is quite possible that in all, or nearly all such cases reported, that the bees have obtained poison in some way.—G. L. TINKER.

I do not think what you describe is a "disease" in the common acceptance of the word. It would require more room than is allotted to me here to give my views on the subject. I have never known any perceptible loss on this account, and, therefore, I do not think the case is a serious one.—G. W. DEMAREE.

I should judge that this is the "nameless disease." I never did any thing to cure it, but I think it is said that a change of queen will effect a cure. I never saw any very old bees affected by it, for old bees have ragged wings in the summer, and I never saw any bees with ragged wings affected.—C. C. MILLER.

This must be what is called the "nameless disease." I have often read about it, but I have never seen a case of it. I do not understand quite about the turning black. No one as yet has given a remedy, or in fact any information that would enable myself to figure out the cause. So far as I have read, it affects old and young bees alike.—J. E. POND.

To give the bees a new queen is the best advice we can give.—THE EDITOR.

### The "Nameless Bee-Disease."

**Query 444.**—1. What is the "nameless bee-disease"? What are its symptoms? How do you cure it? 2. Does it affect some races of bees more than others? If so, which race?—J. H., Tenn.

I give it up.—A. J. COOK.

See my answer to Query 443.—G. L. TINKER.

Yes, what is it? I, too, ask what are its symptoms?—J. P. H. BROWN.

Yes; what is it? 2. I guess so.—H. D. CUTTING.

1. For symptoms see the preceding query. 2. I do not know. I have had only one colony so affected, and that was a hybrid colony. Change the queen.—W. Z. HUTCHINSON.

I do not know. A bee-keeping neighbor says these black, shiny bees are only those which are caught and scraped by the other bees. In any event such are becoming more numerous in this locality with each succeeding year.—G. M. DOOLITTLE.

See my answer to Query 443. I have never seen a colony affected by this disease, and I have never been able to obtain any information as to the cause or cure. I think the disease is still nameless, and that nothing positive is known in regard to it.—J. E. POND.

It is a kind of shaking palsy arrangement, and the bees will be seen on the alighting-board somewhat shiny and trembling. I never did anything to cure it, but it seems to be hereditary, and a change of queens is said to put an end to it.—C. C. MILLER.

There is no "nameless bee-disease." I presume you refer to the singular ailment which some seasons appear among the bees, which might be properly called summer dwindling. I believe it is caused by unwholesome "weed honey." A well-informed apiarist of Indiana says the trouble comes on in his apiary when the iron-weed is in full bloom. In the summer of 1884 my bees "dwindled" while they were at work on the iron-weed. The symptoms were much like the descriptions given of the trouble in other States and places. I do not fear that any harm will come from it. 2. It affects all bees alike, so far as I have seen.—G. W. DEMAREE.

The disease is described as causing a shaking, trembling, palsied appearance. No remedy has yet been found. To change the queen will sometimes cause it to pass away. Some think it is found only when the iron-weed is yielding honey, and attribute it to that weed. The losses from this ailment are so slight that it need not cause any uneasiness.—THE EDITOR.

### System and Success.

☞ All who intend to be systematic in their work in the apiary, should get a copy of the *Apiary Register* and commence to use it. The prices are reduced, as follows:

For 50 colonies (120 pages).....	\$1 00
" 100 colonies (220 pages).....	1 25
" 200 colonies (420 pages).....	1 50

The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book, and are therefore the most desirable.

**When Renewing** your subscription please try to get your neighbor who keeps bees to join with you in taking the *BEE JOURNAL*. It is now so cheap that no one can afford to do without it. We will present a **Binder** for the *BEE JOURNAL* to any one sending us three subscriptions—with \$3.00—direct to this office. **It will pay** any one to devote a few hours, to get subscribers.



## Correspondence.

This mark  $\odot$  indicates that the apiarist is located near the center of the State named:  $\delta$  north of the center;  $\phi$  south;  $\odot$  east;  $\ominus$  west; and this  $\delta$  northeast;  $\ominus$  northwest;  $\odot$  southeast; and  $\phi$  southwest of the center of the State mentioned.

For the American Bee Journal.

### The Honey Season of 1887.

O. CLUTE.

Throughout Iowa, and large portions of adjacent States, the drouth since May, 1886, has been the most remarkable in the history of this section. From May to October, 1886, very little rain fell. All the pastures, meadows, roadsides and waste places, where the white clover usually spreads its thick carpet, were parched brown and crisp. During the fall of 1886 we had only light rains. The ground was dry when winter came. During the winter we had some snow, but the amount was small compared with the average winter. Toward spring there were one or two heavy rains, but as they came while the ground was still frozen hard, the water mostly ran into the streams. The spring and early summer of 1887 are now gone, and the rains have still been light. Not a single long rain has soaked the ground since the middle of May, 1886.

The rains of the early spring of 1886 had been plentiful, hence when the drouth began in May the ground was well soaked. The grass crop, and the small grain gave a good yield. The white clover was abundant in this section, and yielded honey well, so that, as I reported in the BEE JOURNAL last fall, we obtained in 1886 about 100 pounds of extracted honey per colony. The corn crop of 1886, and other fall crops were very light. There was almost no yield of fall honey. The long, dry, hot summer dried out much of the white clover. The long, cold winter with little snow exposed the clover to further loss; and the excessively dry spring of 1887 has continued the unfavorable conditions.

There has been but little white clover to be seen. The scattering plants seem to struggle bravely for life, but they can give but few blooms. The season for white clover honey has come and gone, and has yielded no surplus. The strong colonies stored a little honey while the bloom lasted, but not enough to fill the brood-chambers. The weak colonies gathered about enough to live on.

Owing to the exclusive drouth and to warm weather, the linden opened earlier than usual. The trees were well loaded with blossoms; but the blossoms have yielded only a small amount of honey. The strong colonies have stored a little surplus; the weak ones have built up in numbers; all have probably stored enough to winter on, hence we shall be spared

the trouble and expense of feeding winter stores. But the surplus honey is very small in amount, and the linden is now about gone.

It is possible that abundant rains within a few days would bring on fall bloom, and give us a fall crop. But this is not probable. We must make up our minds to a very small yield of honey for 1887. Perhaps with some of us there will be no surplus at all.

Fortunately the tendency to swarm has been very slight. No more than 5 per cent. of my bees have swarmed. Hence they are keeping in good condition. They will have abundance of good honey for winter. And not having any honey to look after, we can devote the spare time to other important matters.

It is to be hoped that other sections of the country may report more favorably. Wherever the bee-keepers are getting honey this year it is probable that they will get good prices. For the area is so immense over which there will be scarcely any crop, that it is certain that those who get honey in more favored sections, will have a quick market.

Iowa City,  $\odot$  Iowa, July 1, 1887.

Bee-Keepers' Guide.

### The Anti-Bee Craze—An Epidemic.

REV. M. MAHIN, D.D.

It is wonderful to what an extent our humanity is subject to epidemics. We have epidemics of small-pox, measles, whooping-cough, typhoid fever, and Asiatic cholera, not to mention the many other diseases that "flesh is heir to." And it would seem that there are mental states that are very nearly akin to the epidemics that affect the physical man. There are times when suicide seems to become epidemic, and self-hangings, drownings, poisonings, etc., are alarmingly frequent, so that we are almost afraid to trust our friends out of sight, and sometimes we are inclined to feel a little distrust of ourselves. We have had an epidemic of fancy poultry raising, not inaptly denominated "the hen fever," which, in a milder form than the first outbreak more than thirty years ago, has become chronic, and is likely to remain, to the real benefit of the poultry interests of the country.

And, then, we have had an epidemic of "bee fever." The attacks were many and violent. People of all classes, many of them with no experience and no adaptation to the pursuit, rushed into bee-keeping with patent hives, new races of bees, and not a few after losing hundreds of dollars, quit the business in disgust. They did not heed the advice of one of our humorous writers expressed in the following passage, more forcible than elegant: "Don't never undertake to do nothing what aint your forte, lest you find yourself sprawlin' in the canawl, figuratively speakin'."

But of all the epidemics that have come to my knowledge, there is none quite so laughable, if it were not for

the victims, and for the lovers of honey, so serious as that named at the head of this article. The desire to legislate against keeping bees in certain localities except in limited numbers, has become, or is becoming epidemic. It is to be hoped that it will not become chronic. The most amazing thing about it is the ignorance in which it originates. One would think that with our many periodicals devoted to bee-culture, and the many able writers who contribute to the agricultural and other papers, the public mind would be better informed. The claim that bees injure fruit has been demonstrated over and over again to be without foundation. That when forage is scarce they will suck the juices of fruits, and especially of grapes, when the skins have been broken, is quite true. But this is no serious damage, as the broken fruit would soon ferment and spoil. It has been shown by carefully conducted experiments that bees confined where no food is accessible but what is contained in perfectly sound grapes, will starve to death. But suppose they do a little damage, now and then, by appropriating the juices of broken fruits, the fruit-grower's fruit does the bee-keeper's bees quite as much harm as the bee-keeper's bees do the fruit-grower's fruit, and I fail to see why the bee-keeper has not as good a case against the fruit-grower, as the latter has against him. The fact is, society cannot exist without compromises of convenience and interests. If we have the benefits of society, and of the variety of employments and products which society furnishes, we must submit to the incidental inconveniences which naturally grow out of this order of things. I have no right to say to my neighbor that he shall not raise chickens, because the crowing of his partridge cochon rooster disturbs my morning nap, or the cackling of his hens breaks in upon my Sabbath meditations. I have had my sweet-corn eaten up by my neighbor's fowls before an ear of it was mature enough to cook, and my tomatoes destroyed by them almost as fast as they began to color; but what an outburst of ridicule I would have encountered if I had gone to the town council and asked for an ordinance to the effect that no one should keep more than one rooster and two hens within the limits of the corporation.

As to the danger of things to neighbors and passers by, it is so small as to be scarcely worthy of a moment's notice. There is much more danger that my horse may run away and hurt somebody. Yet no one proposes passing an ordinance against keeping horses in the city or village.

I am persuaded that bee-keepers are themselves to blame, in many cases, for the trouble. A neighbor may, without reason, complain of annoyance from our bees; or he may experience some real annoyance; but in either case we must be patient, and answer kindly. "A soft answer turneth away wrath, but grievous words stir up anger." And, then, I have found that a nice dish of honey

now and then, with the compliments of the bee-keeper, has a wonderful effect upon a neighbor's idea of the annoyance of an apiary. If we keep the machinery of society well oiled with gentle words and kind deeds, we will have very little trouble.

This anti-bee epidemic will run its course. People will see the folly of making senseless war against one of the established industries of the country, and will wisely conclude to endure a little temporary inconvenience now and then, for the general good, just as they do in regard to many other things.

Bluffton, S. Ind.

For the American Bee Journal

## An Experiment with Bees and Grapes.

J. M. HICKS.

I have made many experiments and tests during the last 15 years, at my home apiary, which consists of about  $7\frac{1}{2}$  acres of ground, and a bee-house 100 feet long in which I keep my bees on a platform properly constructed for the stands, so that the bees can at all times in the working season go and return at will. As a means of protection from the forenoon sun, I have arranged grape-vines properly planted 15 feet apart at each front post, so they are thus supported and branch out each way on the front of the bee-house, furnishing a magnificent shade for the bee-hives, as well as raising plenty of the finest of grapes each year.

The grapes are often left remaining on the vines quite late in the fall, and not a grape have I ever discovered as yet being destroyed by the bees. Although some seasons have been very unpropitious for honey, causing me to feed several colonies that were quite short of winter stores, yet not a grape have I ever noticed being punctured or harmed by the bees; and this, notwithstanding many times the vines would hang very near the hives, with plenty of the ripe grapes on them.

This howl against the bees harming ripe grapes, must surely come from those who are not posted, or on account of natural hatred, having concluded to make war on the bees. It seems to me that if any fair-minded and unprejudiced fruit-grower would take the time and pains to investigate the subject as it should be, he could without much difficulty learn the facts as stated above, and not condemn and charge the honey-bee with such false accusations as being guilty of destroying fruits of any kind while growing or ripening on the vines of trees. While, on the other hand, there is so much of proof in favor of the bees, as being of great value in bringing about proper and much-needed fertilization in many of the finest grown fruits of all parts of the United States, as well as in all Europe.

It has been practically demonstrated that bees are of great benefit in bringing about a proper fertilization in many of the fruits and berries

grown, which could not be successfully matured without the aid of the honey-bees. Let us hear from the opposing parties, with such facts as are true, and not hear-say evidence, which is of no value in court, and not admissible.

Battle Ground, S. Ind.

Vermont Baptist.

## A Swarm of Be's.

J. B. LEE.

Be quiet, more ready to hear than to speak;  
Be active, true riches unceasingly seek;  
Be patient, the time of Providence endure;  
Be humble, and so shall your path be secure;  
Be hopeful, and never give way to despair;  
Be loving, and show that real heroes you are;  
Be gentle, and prove your wisdom is divine;  
Be merciful, always to pity incline;  
Be gracious, more willing to give than receive;  
Be just, as you would not have others deceive;  
Be upright, and thus your profession adorn;  
Be kind, and treat no fellow creature with scorn;  
Be simple, from sophistry ever abstain;  
Be diligent, if you would substance obtain;  
Be circumspect, think how your conduct is eyed;  
Be meek, and beware of presumption and pride;  
Be lowly in heart for the Saviour was so;  
Be long-suffering, like Him when he so-journed below;  
Be not unbelieving, but trust and adore;  
And Heaven be with you henceforth evermore.  
Fairhaven, Vt.

For the American Bee Journal.

## The Queen-Excluding Honey-Boards.

W. Z. HUTCHINSON.

When I began producing comb honey the first "snag" I ran against was brood in the sections. So long as the sections were over an old-established brood-nest filled with comb, there was no trouble, but when I began hiving swarms in a contracted brood-nest, and transferring the sections from the old to the new hive, then the "circus" began.

I had no metal queen-excluding honey-boards, and something had to be done at once. I took one of Mr. Heddon's slatted honey-boards, and tacked a strip of tin lengthwise of each slat, letting the tin project beyond the edge of the slat until it lacked 5-32 of an inch of reaching the adjoining slat. This was, I believe, the first combined wood-and-metal queen-excluder ever made. Five years ago I made several of these; they are still in use, and answer every purpose.

The strips of tin were tacked to the under side of the honey-board. It was considerable work to tack on the strips of tin and have the spaces sufficiently exact, so I tried making honey-boards of strips of wood  $\frac{5}{32}$  of an inch in width, placed 5-32 of an inch apart. These worked well when new, but the bees soon filled the spaces with wax.

Next I tried perforating a very thin board with a saw, cutting a kerf exactly 5-32 of an inch. These work quite well, and I have about fifty of them that have been in use three years. The only objectionable feature is that the openings must be cleaned out each spring. If wood were of sufficient strength so that it might be made as thin as the zinc that is used, it is possible that it

might be made to answer the purpose as well. I am not certain that it is the thinness of the metal that induces the bees to refrain from filling the openings with wax; possibly the character of the material has as much to do with this as has its thinness.

During the past two years I have been using the combined wood and-zinc honey-board, as first invented, I believe, by Dr. Tinker. They are *par excellence*; I ask for nothing better. I have sometimes thought that the perforated wood might be made to answer if the edges of the openings were chamfered so as to make the edges of the wood quite thin. I have not advanced beyond the "thinking stage" in this matter. The only advantage would be the cheapness.

In hiving swarms in hives with a contracted brood-nest, and using frames with starters only—a method which many bee-keepers are now beginning to use—a queen-excluding honey-board is a necessity. Had Mr. Corneil used such a honey-board he would not have been troubled with brood and pollen in the sections. He also used a brood-nest that was *too much* contracted; this, with the absence of a queen-excluder, absolutely forced the queen and pollen into the sections.

I have always advised giving the bees a brood-nest having a capacity of not less than five Langstroth combs. Mr. Corneil used a brood-nest having a capacity of only four combs of 160 square inches each. One of these combs contained a trifle more than a Langstroth frame; about 5 square inches more than a Simplicity-Langstroth frame. I do not wonder that he was troubled by the bees swarming out. I have yet to find one bee-keeper who has followed my method and failed. I have known quite a number who failed when they *thought* they were following my instructions; but, upon questioning them closely I have always found that they had omitted some important factor, or added some disturbing element.

Last winter, at the Michigan State Convention, one gentleman said that he had followed my method, and the bees built all drone-comb; but, upon cross-examination, it was found that he had taken some combs from a full colony and inserted empty frames in their places; something that I have never recommended. It was to get the matter all together, and in such form that I *could not be misunderstood*, that my little book was written; and if Mr. Corneil will closely follow the instructions there given, I feel sure that he will meet with success.

Mr. C. intimates that he lost considerable by following my advice. My advice would be not to strike out too heavily at first in any new direction. In fact, the closing words of my little book are: "And let those who, for the first time, adopt the methods herein advised, do so upon no larger scale than that upon which they can afford to meet failure; and, if failure comes, let them report it, together with the accompanying circumstances, and all will find me ever ready to ex-



plain and defend my views, or, if necessary, acknowledge my errors."

Try again, Mr. Cornell, and use a queen-excluding honey-board, and do not contract the brood-nest quite so much.

Rogersville, 6 Mich.

Gleanings.

## A House for the Apiary.

PROF. A. J. COOK.

I have been giving much thought of late to the plan for an ideal house for the apiary....It seems to me that this is a question of exceeding importance, and I wish to submit my drawings and reasons for this plan for criticisms, that we may secure the very best.

The house is three stories—a cellar 7 ft. high; first floor 8 ft.; and chamber 6 ft. at the lowest part. The cellar is for wintering bees; the rooms above are for honey, extracting, and shop; the chamber is for storage. The cellar has two rooms. One, for bees in winter, is 18x24 ft. This is entirely under ground, with a good stone wall, grouted below and plastered above, with a double floor grouted between—to secure against mice and cold alike, and with the partition wall double, with double doors. At the centre of the partition wall a small chimney runs from the bottom of the cellar up to and through the roof. Just within the wall of this room is a small gutter which extends nearly around the room, as seen in the drawing, from one end of a cistern to the underground sub-earth ventilation-pipe which runs 200 ft. or more under ground. Thus this pipe of 4-inch glazed tile serves for sub-earth ventilation, overflow-pipe for a cellar cistern, and it can be made to empty the cistern and cool the bee-cellar at any time, the water passing through the small gutter.

In the other room of the cellar, which is 8x24 ft., there is a cistern 8x14 ft., and 5 ft. high. As will be seen, this extends 2 ft. into the bee-cellar, yet the partition is tight, except a small hole just at the bottom, so we may say we have two cisterns—one a small one in the bee-cellar, the other a large one in the other cellar, though they are connected at the bottom. The other room, which is a sort of vestibule for the bee-cellar, has two windows—one (1x2) by 2 ft., and stairs to the room above, which are covered by double trap-doors. This room is entirely under ground, though the outer double door, which is 4 ft. wide, is, because of a natural slope of the ground, on a level with the outside, or else is inclined so we can easily run a wheelbarrow into the cellar. The windows may receive light by a half-circular excavation, or, if desired, may be above the earth at this southeast corner of the house.

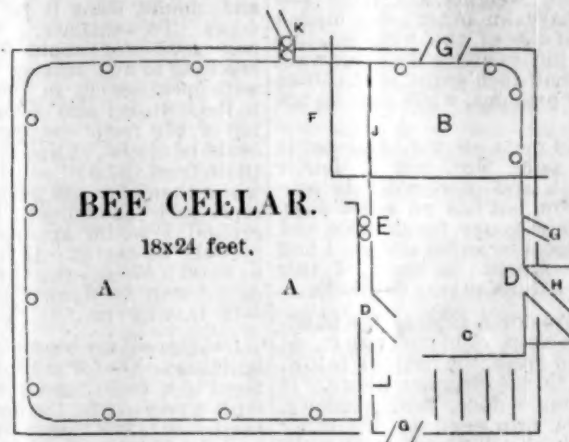
Here, then, we have an arrangement by which we can control the temperature perfectly, from October to May; and from an experience extending now over eight years, I am

sure that, with enough good food, bees are entirely safe in such a cellar. By the aid of the cistern there is no occasion to use ice to reduce the temperature in the spring; and we can, by the aid of the sub-earth ventilation and cistern water, keep the temperature just to our liking all through

the winter, with almost no trouble and at no expense. This is no theory; it is a demonstrated fact. As the bees can be wheeled into the cellar, their removal to or from the cellar is a very light task.

On the ground floor, which is on a level with the earth outside, there

FIGURE I.

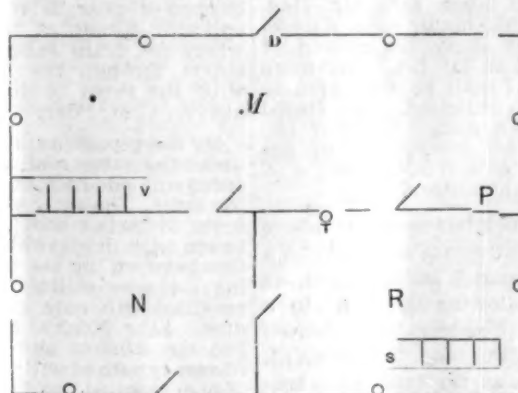


References to Figure I.

- A.—Cellar for bees in winter; 7 feet high, grouted on the bottom and plastered with water-lime or celled above; size, 18x24 feet.
- B.—Cistern, 8x14 feet, outside measure, and 5 feet high.
- C.—Stairs to cellar.
- D.—Four-foot, double door.
- E.—Chimney.
- F.—Cistern extends to this line.
- G.—Cellar windows, 1x2 1/2 ft., double, outer glass, and inner wood. Both are hinged above so as to open in easily.

- H.—Passage-way from cellar, with stone abutments on each side, and level with outside so that a wheelbarrow can be run in and out.
- J.—Stone wall 5 ft. high, or all the way up, as may be desired.
- K.—Drain of 6-inch tile (Dr. Miller says 10-inch) following the inner lines 200 ft., and all the way below front or variable temperature mark.
- L.—Double wall lined with paper.

FIGURE II.



References to Figure II.

- M.—Shop, 12x30 feet.
- N.—Extracting room, 12x15 feet, with hard-wood floor.
- O.—Windows, all of which have wire gauze screens outside, and hinged to swing out. Screens on 4 south windows to extend 4 inches above upper jamb, with 1/2-inch space.
- P.—Pump.
- R.—Room, 12x15 ft., lathed and plastered, with stove.
- S.—Cellar trap-door—double.

- T.—Chimney.
- V.—Three and one-half feet stairs. Doors—The double one at the bottom having a sill so low that a wheelbarrow can be run over it; outside door being of gauze-wire.
- Posts 14 ft.; studding, to chamber, alternate 12 and 18 inches apart. Side-studding 12 feet long and 1 ft. apart. Floor, double, one foot apart, and with grouting. Cellar and house to be mouse-proof. Ceiling 8 ft.; doors are all 3 feet.

are three rooms. One on the south-west, 12x15 ft., is for extracting and extracted honey. It has a hard-wood floor, wide outer door, and only one thickness of wall, so that in summer it is kept very warm, and so enables us to ripen honey without leaving it in the hive till it is all capped. This is also a demonstrated fact. The joists above are just so wide that they serve as frame supports. The windows are poised with weights, and these and the door have an outer gauze hinged frame. In case of the windows, this extends 3 inches above the outer wall, leaving a half-inch space, so that bees can easily pass out, while they do not pass in.

A second room on the southeast is also the same size, but is double walled, lath and plastered. It contains a stove, but has no outer door. It is for comb honey, for an office, and has trap-doors to cellar stairs. I find that some are not in favor of this room, but I think it very desirable.

The entire north side of the building is for a shop. This is 12x30 ft. It has a pump from the cistern below, and stairs to the chamber above. It has an outside door, four windows, and a door into each of the other rooms. There will also be a stove in this room. In winter then, when we have a fire in either room, the chimney will be heated, and the air drawn from the bee-cellar. The wind, too, passing over the chimney, will suck the air from the cellar. In both cases the air is supplied through the long sub-earth pipe, and so is tempered by the temperature of the earth, and is kept sweet and pure. This is both theory and demonstrated fact. This room is large enough so that a small engine and some machinery can be introduced if desired. I find that this house, large enough for a large apiary, can be built for \$500; and for safety and convenience I believe it fills the bill. I cannot agree with Mr. Heddon, that we had better have double-walled houses above the ground. I think the cellar far better and more convenient. I shall be very glad to have this plan criticised, for, as stated before, this is a matter of great importance to all bee-keepers in the Northern States and in Canada.

Agricultural College, & Mich.

[As Prof. Cook has sent the above to the BEE JOURNAL, and asks for a thorough discussion and criticism, we think the following answers to a query in the *Canadian Bee Journal* will be interesting and to the point. The inquiry was for building a bee-house for 60 colonies, and these are the replies there given.—ED.]

Bee-houses above ground in this locality are very unsatisfactory, therefore I have given little attention to them, and do not feel competent to advise in the matter. In no locality can they equal an underground winter repository, and were I to build anything for the safe wintering of bees, it would be wholly or partly underground. If the latter, it is easily

covered with several feet of dirt, which makes it equal to being wholly underground.—G. M. DOOLITTLE.

I winter my bees on the summer stands, and in an ordinary house-cellar. If I were going to build a place to winter bees, all would depend upon location. I should prefer to build into a side hill. I would build of stone, if plenty, or of brick. I should want the floor constructed of cement, and should want it to have double doors. To ventilate, I would use a box ventilator about 8 feet inside, reaching to and resting on the floor with openings cut in the sides close to the bottom; also openings near the top of the room constructed so they could be closed. I find it best to ventilate from the bottom; if it gets too warm then open the top holes. If the repository should be built above ground, I would arrange it so that it could be heated. If you can afford to build a repository, "build it well;" do not stop for a few dollars expense.—H. D. CUTTING.

I winter all my bees in cellars under buildings. One of my apiaries is wintered in a cellar under a bee-house, built especially for the business. The bee-house is built on a dry knoll, and is about 14x20 feet, with a cellar full size of the building, and 6½ feet deep, and excavated so as to be below the surface. The walls are of stone, 20 inches thick, well mortared; then it is lined inside with brick standing on edge. The joists overhead are 8 inches wide, and are sealed on the under side with good lumber, then filled in with dry sawdust, and floored with matched lumber. It has a hatchway in one end with double doors; with a trap-door to lay snugly down over the hatchway to keep out snow and rain. It is ventilated by an underground drain 10 inches square, about 100 feet long. The drain has a small slide door where it enters the cellar, to open or close as required. In the opposite corner of the cellar from where the drain enters, a stove-pipe enters through the floor connected with the stove in the honey-house above.—C. M. POST.

My bee-repository for wintering is under the same roof as the dwelling, occupying one-half of the first flat of the same. The outer walls are double, being 23 inches apart, and filled between with dry sawdust. The partition between the bee-room and dwelling, and also ceiling of the former, are filled with only 15 inches of sawdust. Like Noah's Ark, it contains but one window and one door; the former is packed with about 10 inches of fine sawdust before the bees are put into winter quarters, and the latter treated in a like manner afterwards. The inside measurement of the room is 14x20 by 9 feet high, and is capable of wintering 150 colonies; being 14 feet wide allows four rows of shelving and two passes, the shelves are three deep, wide enough to let the hives stand nicely (15 inches), the lower one 18 inches off the floor, and the others spaced 2 feet. The floor is about 2 feet above the surface of the ground, and underneath is a stone

cellar 6 feet 6 inches high, into which a large sub-earth ventilator is brought; the same lies 4 feet under the surface of the ground, and is something like 160 feet long. At the outer end there is a box arranged to allow the air to enter the pipe and yet prevent snow from entering and blocking it. From the cellar there are ventilators into the bee-room in each corner, and also a winter entrance, thereby enabling me to visit the bees without in the least changing the atmosphere. From the floor of the cellar there is a 2½-inch pipe connected to the chimney (which reaches to the cellar) to draw off the carbonic acid gas; the upper ventilators of the bee-room also join the chimneys.—D. CHALMERS.

My bee-cellar is under my dwelling house, where I winter my bees with an average loss of only 3 to 4 per cent. The cellar is an excellent one, well drained and fairly dry, and the bee-department is ventilated in the following manner: For the ingress of air I use the cellar drain, which runs below the frost, some 200 feet from the house gradually thereafter coming to the surface. By means of a pipe at the outer end reaching always above the surface of the snow, I keep a free communication with the external air, the temperature of which is considerably raised before it reaches the bees, by passing about 250 feet under the ground. For the egress of the foul air and gasses I have a pipe 6 inches in diameter, which starts within 4 or 5 inches of the cellar floor and runs up, connecting with the kitchen stove above. I have also two other pipes of the same diameter running out of the bee-cellar and reaching to the external air. These are kept stuffed during the coldest of the weather with small circular bags filled in with dry sawdust, and these can be easily removed, or partially removed, whenever it becomes necessary, either to lower the temperature of the bee-cellar or purify the air. With these facilities, in connection with a stove standing outside of the bee-department, which can be fired up whenever necessary, the temperature in the bee-repository can be kept as desired without much trouble. If you will just keep in mind a few first principles or essential conditions of successful wintering, you can construct your house in conformity therewith, and you will then require but little advice from anybody. In the first place, you want a house for bees frost-proof, and dry if possible. In the second place, you want it well ventilated, and to secure this the sub-earth pipe is indispensable for the introduction of fresh air from without. Build the house, if possible, on a site slightly elevated, and put your subterranean pipe deep below the frost, and carry it off 300 feet or more, if possible, before you connect with the surface. This will be a little expensive, but a few colonies saved from winter losses would soon cover it. As to the upward ventilation, that, of course, can be easily accomplished. For 60 colonies, 12 to 15 feet square, and 7 feet high, inside measure, would be large enough. Were I building a bee-cellar



I think I should construct it of wood above ground, and fill it in on all sides and above and below with about 2½ feet in thickness of dry sawdust, the floor above ground, and double or treble doors, of course. — ALLEN PRINGLE.

I will give a description of my own, which I think is as good for the purpose as any in Ontario. The building is 12x25 feet, two story. To begin at the beginning, I excavated 4 feet deep. I then built a stone foundation 2 feet thick, and a little above the surface of the ground. Upon this foundation I put up two balloon frames of 2x4 inch scantling, one frame on the inside of the foundation wall, and the other on the outside. I sheathed up the inner sides of these two frames with inch boards. I had now a frame-work standing on the stone wall—or rather two frames, that on the outer margin 2x14 inch scantling, 16 inches apart and sheathed up inside. The inner frame-work was the same, but sheathed up on the reverse side. I had thus a vacant space over the centre of the stone wall of some 14 inches walled up on either side with inch boards; this space I filled up with sawdust, and lathed and plastered inside and outside. Beginning at the outside: I have first a coat of lath and plaster, then 4 inches of dead air space, then an inch board, then 14 inches of sawdust, then another inch board, then a dead air space of 4 inches, and the inner coat of lath and plaster. The ceiling is 10 feet high, and made as follows: I laid on joists 2x8 inches, lathed and plastered below and floored with rough inch boards on top; immediately over the first joists and on this rough floor I laid another set of joists, the same in size, and filled the spaces between flush to the top of the other set of joists with sawdust, and then laid a tongued and grooved floor over all. The ceiling, beginning from above, then consists of first, the floor, then 8 inches of sawdust, then a rough floor, then 8 inches of dead air space, and finally the coating of lath and plaster, which forms the ceiling of the bee-house proper. I divided the upper story into two rooms, lathed and plastered also. The inner wall on the foundation, however, only runs to the top of the first floor, so that the walls of the upstairs rooms are simply a 2x4 inch scantling, frame plastered inside and outside. These upstairs rooms afford dry, warm storage for comb honey. I laid a Portland cement floor on the bee-house below, and cemented the stone wall inside, which effectually excludes any soakage from without. I have an inner and an outer door on the bee-house, and between these I put a 4-inch thick straw mat, made to fit the doorway. This mat, of course, I put away in the summer and replace it with a wire screen door, for I do all my extracting in the bee-house—and a delightfully cool spot it is in the hot weather which prevails then. Two sub-earth ventilators—8 inch tube—and led up from a ravine to the rear of the building, give ample bottom ventilation. The upper ventilation consists of two

tubes of stove-piping, running through the ceiling and roof. Through a hole in the upper floor I drop a thermometer into the bee-house and keep it suspended midway between the ceiling and floor. To find the temperature below, all I have to do is to go upstairs and draw up the thermometer. In each of these ventilating tubes I have a common stove-pipe damper, and by simply opening or closing the damper I can regulate the temperature below at the same time I am examining the thermometer. This bee-house being plastered inside and overhead, a coat of whitewash in the spring keeps it sweet and clean. I have used this house for wintering bees for some six years, and I never lost a colony in it except from starvation or queenlessness, and I do not think the bees consume more than 6 pounds of honey to each colony in five months' confinement. It is so nearly perfect that, if building again, I would make no change except to substitute concrete for sawdust, which would make it last many years longer. This house will accommodate 200 hives. There is a chimney starting at the upper floor, and into this I ran one of the ventilators the first year I used it, but I found that the vapor from below condensed in the lateral pipes and filled them with ice. Afterwards I used upright tubes, and have had no trouble with them since. From this description some may think my house too costly. All my outlay was the cost of the material, for I drove every nail and put on every trowelful of plaster there is in the building with my own hands.—R. MCKNIGHT.

If we were building a bee-house we would prefer to have a good cellar under it frost-proof, and have the walls above the cellar at least 20 inches thick. This gives an opportunity of wintering either in the cellar or above, or if desired in both. A cellar 12 feet square inside would hold 100 colonies, or if you use both cellar and the second story it would hold 200. We find the second story very valuable for extracting purposes, work-shop, store-room for honey, etc. In fact without some such place for storage, with a large apiary, it would be very difficult to manage. But if you have all the storage you require, and every facility for carrying on your business so that nothing is required excepting simply a winter repository, it may be made all above ground by putting up a wall of 2x4 scantling, and filling the 20-inch space between the walls with dry sawdust or some equally good packing. A very cheap arrangement might be built under ground if the drainage was good, and the soil sandy so that no water would trouble. This might be called a cave by some, by merely building a stone wall around it and roofing it over with timber and earth sufficiently deep to prevent the cold from getting in; or it might have a packing of 18 inches of sawdust, and at least 2 feet of chaff, but 30 inches would be much better than roofing over.—EDITOR OF CANADIAN BEE JOURNAL.

For the American Bee Journal.

## Uniting Weak Colonies.

J. E. POND.

I have tested this matter quite thoroughly, and would say that two weak colonies united in the spring will, in my experience, live no longer than either would have lived alone. The queen and colony seem to need young bees in the hive to cause brood-rearing to go rapidly forward, for without them there seems to be a lack in that respect. For this reason (which I believe correct) I always draw a frame of brood from a strong colony and give to the weak one, preferring, if I can find such, a frame from which the bees are just emerging.

I have built up in this way to full strength by July 1, quite a number of colonies that did not have bees enough on the first of March, to cover one-third of both sides of a Langstroth frame; and I have united colonies, both much stronger, and having a good queen, that "petered out" completely in three or four weeks. In case, however, I had no colony strong enough to spare brood, I should unite to save a queen.

Foxboro, Mass.

For the American Bee Journal.

## The Season in Northern Ohio.

T. F. KINSEL.

Up to June 20 there was no surplus honey. It was too cold in fruit bloom for bees to fly, and too wet during white clover bloom for any nectar to be secreted. The red clover was very sweet—but is there such a bee as a "red clover queen"? If a drouth, preceding clover bloom, shortens the bloom, bees seem to work on red clover. I have seen black bees and yellow-banded ones on red clover, but ordinarily the bees are not found on red clover.

Only one-third of my bees have swarmed, and they, except four, were made swarms according to Mr. Simmins' method. On July 1 I had a natural swarm, and desired to test Mr. Hutchinson's method. They were hived on four Langstroth-Simplicity frames, with 1-inch starters, and closed up with a division-board on each side; a zinc queen-excluder laid on top, and an extracting super put on top, immediately filled with drawn foundation. It was a large swarm, and was forced "up stairs" for want of room. In the evening of July 2 I examined them, and found 10 pounds of honey in the super.

Bees now are working on basswood, and fly and work from sunup till sundown. I think that Mr. Demaree told the exact truth when saying: "If honey—nectar—was plentiful, it would be difficult to keep bees out of the sections." Bees, like men, cannot make something out of nothing.

Mr. Doolittle once said that he preferred 25 colonies ready for the honey

harvest at any time, to 200 colonies kept in the ordinary way. It seems to be the truth, and if he has had colonies gather 22 pounds of honey each in one day from basswood, as he says, what use is there to fuss with so many bees for so little honey? It would be better to keep 25 colonies ready for the honey harvest when it comes, though they had to be fed some. All men cannot do as Messrs. Doolittle, Demaree, Heddon and others do; yet any man or woman with some energy can keep 25 colonies strong at all times, better than to waste time on more colonies as ordinarily kept.

We are having a "honey shower," but it is very dry here now. We had a sprinkle last night.

Shiloh, 3 O., July 4, 1887.

### Hiving Bees—A Laughable Incident.

The following graphic description of how Judge Odom's man Roberts hived, or, rather, did not hive, a swarm of bees, is from the Albany, Ga., *News*. It is a good story, the perusal of which our many readers will enjoy. Here it is:

There was a lively bee-hiving out at Judge Odom's "oakey woods" place the other day—the whole affair being fully up to reputation as regards the tragic and ludicrous. Judge Odom had charged Mr. Roberts, the overseer, to watch the bees and let no swarms get away. Swarming season approached, and Roberts made ready for his apiarian harvest by preparing gums, and conveniently placing tin pans, bells, horse-shoes, and other instruments of music likely to compose and detain a swarm of bees, on taking French leave.

He did not have long to wait. The other morning the hottest kind of a swarm darkened the air, and Roberts put his orchestra in motion with a vigor that would cause any musically-educated bee to pause, reflect, and turn back. They did pause, and with one accord pitched upon a tree in the yard, where they formed themselves into a funnel-shaped mass.

Roberts then played upon them with a huge syringe from a bucket of water, and having effectually, as he supposed, put out the incipient flame that lurks in their tails, prepared to gather them into his garner. The bunch of bees were some 10 or 12 feet from the ground, and the object was to land them safely within the beegum.

A serious difficulty here met Mr. Roberts, to-wit: how to bring the gum in proximity with the bees and retain it there. The gods of genius were propitious; necessity, prolific old mother of invention, brought forth a son in the person of "Blind Phil," a colored man on the place, who is nearly or quite blind.

"Phil, come here," said Mr. Roberts, "I want you to hold this beegum up under that bunch of bees, while I climb the tree and sweep

them in." And without ceremony or unnecessary delay, he seized Phil, and placed him directly under the bees, put the beegum on top of his head, and directed him to stand fast.

Broom in hand, Mr. Roberts then ran up the tree with the nimbleness of a cat or squirrel, and, crawling out, hung himself on a limb, and cautiously began to sweep them off, letting them fall in lumps into the open box on the negro's head below. Mr. Roberts congratulated himself on the success of his scheme.

Sometimes a wad of bees would miss the hole and strike Phil on the shoulder, which made him restless. "Stand firm, Phil," said a voice from above, "and they will not sting you. If a bee finds out that you are afraid of him, he will sting you certain. Just let him know you are not afraid, and there is no danger," remarked Mr. Roberts by way of encouragement.

"Ouch! golly! I'm stung for shuah! Whew! Mars Roberts, I'm got to drap dis box!"

"Stand still, you chicken fool you! I'll soon have them all in. Who cares for a bee?" Just then an old-liner marched down Phil's back, under his shirt, and Phil became still more uneasy, but Mr. Roberts spoke soothing words from above.

Suddenly, however, the bees seemed to realize who it was disturbing them, and about forty "business fellows" popped Mr. Roberts simultaneously, and he dropped his broom, lost his hold, and came down with a crash upon the negro and box.

With a whoop and a wild screech, Phil got upon his feet and lit out, followed by a crowd of bees. He forgot his blindness, and went he knew not whither, striking the garden palings broadside, and leveling three panels with the ground. He never stopped, but continued to charge around the inclosure until the vegetables were all destroyed.

In the meantime, Mr. Roberts was fully employed. In fact, he was "very busy." Around the house and through it; then under it; out to the gate, through the house-lot, and "over the hills and far away."

Neither were the bees idle, but diligently "improved each shining hour," fitting from flower to flower (Roberts and Phil were the blossoms), culling all the sweets and raising merry "Hail Columbia."

The swelling has all gone down now, and if anybody sees a stray swarm of bees in the neighborhood they need not hesitate to live them, as Mr. Roberts and Phil will lay no claim on them.

Prairie Farmer.

### Feeding Bees in the Spring.

MRS. L. HARRISON.

Some time ago I examined a colony belonging to a friend in an adjoining town, and if I had not done so they would soon have starved. They had consumed all their stores in rearing brood, and had made no provision for

a rainy day. Many persons suppose that because there are flowers in abundance, there is honey; but this is a mistaken idea, as the electric conditions must be just right or the nectar will not be secreted. Good corn-growing weather is good honey weather; warm nights, followed by soft, balmy days.

When the weather is warm enough for bees to fly, and they are rearing brood rapidly, it is not so important what kind of sugar the syrup is made of, as it is for winter stores. Brown or maple sugar will do very well. Care should be taken that robbing is not induced, and it is best fed in the upper story where no bee from the outside can gain access to it. Where the bees are covered with duck, muslin, or a quilt, one corner can be turned back, allowing the bees to come up. Although they are very investigating little bodies, they do not always find the food immediately; but if a little is poured upon them, and a small stream of it leading to the receptacle, they will soon be busily engaged in carrying it down into their combs.

Peoria, 3 Ills.

### Honey and Beeswax Market.

The following are our very latest quotations for honey and beeswax:

#### CHICAGO.

HONEY.—We quote: Extracted, 5¢@7c., according to quality and package. New honey in 1-lb. sections was sold for 15c. per lb. Only 2-lb. sections of honey are now on the market.  
BEESWAX.—22c. R. A. BURNETT.  
July 7. 161 South Water St.

#### DETROIT.

HONEY.—Best white comb, 11¢@12c. Market is nearly bare, awaiting the new crop.  
BEESWAX.—23¢@24c.  
June 10. M. H. HUNT, Bell Branch, Mich.

#### SAN FRANCISCO.

HONEY.—We quote: Extracted, white, 5 cts.; light amber, 4¢@4½c. Comb, extra white, 12¢@14c.; amber, 7¢@10c. Market firm.  
BEESWAX.—18¢@20c.  
July 2. SCHACHT & LEMCKE, 122-124 Davis St.

#### ST. LOUIS.

HONEY.—Choice comb, 10¢@12c. Strained, in barrels, 3¢@4½c. Extra fancy, 4¢ more than foregoing prices. Extracted, 4¢@6c. Market dull.  
BEESWAX.—Steady at 20¢c. for prime.  
May 20. D. G. TUTT & CO., Commercial St.

#### SAN FRANCISCO.

HONEY.—We quote: White comb, 12¢@14c.; amber, 7¢@10c. Extracted, white, 4¢@5c.; light amber 3¢@4½c. Market quiet.  
BEESWAX.—19¢@21c.  
May 14. O. B. SMITH & CO., 423 Front St.

#### MILWAUKEE.

HONEY.—Choice white 1-lbs., 12¢@12½c.; choice 2-lbs., 10¢@11c.; dark not wanted, and imperfect stock. Extracted, finest white in kegs, 6¢@7c.; in white in kegs and barrels, 6¢@6½c.; dark, 4¢@4½c.; amber, in barrels, 4¢@5c. Demand limited and supply small.  
BEESWAX.—25c.  
June 10. A. V. BISHOP, 142 W. Water St.

#### KANSAS CITY.

HONEY.—We quote: White clover 1-lbs., 10¢@12 cts.; dark, 9¢@10c. White clover 2-lbs., 10¢@11c.; dark, 9¢@10c. Extracted, 5¢ to 6c. in small way. Market almost bare of comb and extracted honey.  
June 16. CLEMONS, CLOON & CO., cor 4th & Walnut

#### CINCINNATI.

HONEY.—We quote for extracted, 3¢@7c. per lb. Best comb brings 11¢@14c. Demand improving.  
BEESWAX.—Good demand, 20¢@22c. per lb. for good to choice yellow.  
June 11. C. F. MUTH & SON, Freeman & Central Av.



## Local Convention Directory.

1887. *Time and place of Meeting.*  
 July 16.—Marshall County, at Marshalltown, Iowa.  
 J. W. Sanders, Sec., LeGrand, Iowa.  
 Nov. 16-18.—North American, at Chicago, Illa.  
 W. Z. Hutchinson, Sec., Rogersville, Mich.  
 Dec. 7-9.—Michigan State, at East Saginaw, Mich.  
 H. D. Cutting, Sec., Clinton, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

SELECTIONS FROM  
OUR LETTER BOX

**Filling Brood-Nests with Honey.**  
 —Abe Hoke, Union City, Ind., on June 28, 1887, says:

The prospect for a large crop of honey looks rather slim at this time, but I think it is improving. Swarming is 20 to 25 days later than last year. The bees have been filling the brood-nest with stores for the last two weeks, so if we get little or no surplus we will not have to feed our bees. I am just as happy looking after my bees as though they were storing honey.

**Apple-Blossom Honey, etc.**—Chas. D. Barber, Stockton, N. Y., on July 2, 1887, says:

I began with one colony in the spring, and in two weeks it stored at least 75 pounds of apple-blossom honey. We have four large orchards for my bees to work on, and I consider the honey as good as that from white clover. My bees are Italians, and they swarmed three times before June 21, each swarm being a large one. The first swarm has its hive almost full of honey now, and basswood is not yet in bloom.

**Little Yield from White Clover.**—J. F. Hays, Macomb, Ills., on June 30, 1887, says:

The honey crop is comparatively a failure here, and the bee-keepers are "blue." We had an abundance of white clover, but it yielded very little honey. I got only 10 swarms from 100 colonies. The weather continues very dry.

**Elongated Cells.**—William L. Job, Fillmore, Ind., on June 26, 1887, writes:

I have just read "Symptoms of Foul Brood," on page 393, with much interest. If Mr. Hoyle is correct, that elongated cells is a symptom of foul brood, I fear it is in this locality. After reading his article, I remembered noting one a few days ago in looking for a frame of brood to give to a weak colony. I have just been out and examined the colony. It has been somewhat weak this spring, and the bees seem to have no energy. They have plenty of sealed honey carried over winter, and at present

have plenty of pollen and considerable brood, yet one-half of the brood is in elongated cells, some of them not capped over, while two-thirds probably are capped. I put a frame of this brood in the hive of another colony a week or more ago, and now I find no raised cells in that frame of brood. I did not look for the queen, but saw plenty of eggs and brood in different stages. Bees are storing no surplus, as white clover is dried up. Our last chance is linden, and it is just beginning to bloom.

**Width of Hives—Division-Boards.**  
 —A beginner in Sunapee, N. H., asks the following questions:

1. I bought some hives last winter just 13½ inches wide, which the dealer said were just right for nine frames. Was he correct? If not, what is just the right width for nine frames? 2. Should there be a bee-space below the division-boards, or should they fit close to the bottom of the hive?

[1. For hives to contain nine frames we make them 13 inches in width.

2. Division-boards should fit close to the bottom of the hive.—ED.]

**Virginia Water-Leaf, etc.**—Abel Gresh, Weedville, Pa., on June 28, 1887, says:

I send a sample of a plant found wild in the woods here, which appears to be very attractive to bees. Please give the name, and state its probable value as bee-forage. Bees are about done swarming, and have some surplus, but if rain does not come soon the honey crop will be cut short.

[This is *Hydrophyllum Virginicum*, belonging to the Water-leaf family. The common name is the "Virginia water-leaf." It is a shade-loving plant, or rather does the best in the woods, and, like the other members of the family, is an excellent honey-plant, both for the quality and the quantity of nectar produced. It is a native, and is very widely distributed throughout the country, though usually not in great abundance.—T. J. BURRILL.]

**Honey Crop a Failure.**—H. C. Gifford, Morris, Ills., on June 29, 1887, writes:

I work for comb honey, and never take any out of the brood-chamber. My 24 colonies came out strong in the spring, with lots of honey, and to-day I do not think there is as much honey in the hives by 400 or 500 pounds as there was when I unpacked them. I have had 7 swarms, which I hived, and how they live I cannot tell, but I do not believe that one of them would have staid in the hive if I had not filled it half full of foundation to encourage them. We had no white clover to speak of, and the bees are quiet, except a little while in the

morning and evening. I am on the Illinois river, and there is plenty of timber here, but until the last few days it seemed there was nothing for them to do. They are working now some on the linden. I think the crop in this section will be a failure. I am the only one that I know of here that has had a swarm. Last year, from 12 colonies, spring count, I got 1,200 pounds of honey, and I did not use foundation. I put on the sections the first thing in the spring, and all the best of them have done is to draw out the comb. Some have not touched it yet.

**Few Swarms and Little Honey.**—Oliver Foster, Mt. Vernon, Iowa, on July 1, 1887, says:

I can report from this section few swarms and but very little honey this season. We had a good rain to-day, but it is too late to do much good to the bees.

**Lots of Bees, but Little Bloom.**—W. Mason, Fillmore, Ind., on June 29, 1887, writes:

Through this part of the State every thing is drying up badly. Bees are storing but little surplus honey, the white clover bloom being almost a failure. But very few swarms have issued so far. The hives are full of bees, and would do good work if there was plenty of bloom. The basswood has just commenced to bloom, and we are hoping that a good yield from it, with what little is stored from white clover, we may have a small crop at least. Unless good fall bloom should follow, we will be able to report a failure such as we have not met with in ten years; which will be quite a discouragement to beginners.

**White Clover and Drouth.**—Rev. L. Lobeck, Key, Iowa, on June 27, 1887, says:

Bees are doing poorly. From 9 colonies of hybrids, which are in a very good condition, and from which I allowed only two to cast a swarm, I have taken but 30 pounds of comb honey. I do not think that they will average 15 pounds of surplus each this year. White clover is nearly killed by the drouth. Last year my colonies averaged 85 pounds of comb honey.

**Report—Shelled Honey.**—James Winters, Kenton, Ohio, on July 5, 1887, writes:

Bees in this locality are not doing much so far this season. They came through the winter in good condition, with very little loss, but they have not swarmed much, nor gathered much honey. I have had only one swarm from 36 colonies, and there is very little honey in the surplus boxes. The white clover did not yield much honey; what surplus they have gathered came mostly from the linden, and that is nearly exhausted. They

may get something from the second crop of clover and the fall flowers, but the prospect is not flattering for a good yield of honey this season. I notice in the BEE JOURNAL that a new name for extracted honey is wanted. Call it "shelled honey;" then when our customers want to know what kind of honey that is, we can explain. Ignorance in regard to honey-production prevails to such an extent amongst the consumers, that it takes an explanation to give them a correct idea of the matter. Any thing to provoke inquiry will be a help to get rid of the prejudice and ignorance that surrounds our business.

**Prepaying Charges on Bees, etc.**—C. Weeks, Clifton, Tenn., on June 28, 1887, writes:

For the last three years I have been disposing of my surplus stock of bees, but now a new obstacle comes up. Express companies refuse to take bees unless the charges are prepaid. The question is, how can we advertise bees in hives and prepay express charges, not knowing what distance they will have to be sent? I sent a colony to St. Louis by boat to be expressed to Washington Territory. The agent refused them unless the freight charges (\$30) was prepaid. Of course I could but order the bees brought back. The man who ordered them wrote me that he would have been willing to have paid \$8 expressage on them. There is less surplus honey here this year than for the past ten years. In fact, this is not a favorable locality for surplus honey, and I expect to be forced to destroy a portion of my bees to reduce my stock. I allow but little increase of colonies.

"There's the rub." We see no way to avoid the trouble. The Express Company could not be blamed. Bees are perishable property, and if they had carried them through to Washington Territory, the last company which handled them would have had a loss of \$20 or more, for it must advance the charges of the preceding handlers. As it was, you are the sufferer. But there are two sides to this as well as nearly all of such questions.—ED.]

**Swellings from Bee-Stings.**—Warren Pullen, Estherville, Iowa, gives his experience with bee-stings as follows:

This spring I had 4 colonies of bees, and I have increased them to 10, and they are still increasing. But could I change swelled head and bloated eyes into hives, I should not have to make any for ten years. Can you inform me as to anything that will prevent the swelling from bee-stings? I do not mind the sting, but I swell like a barrel, and cannot see for three days. I break out all over my body, from the top of my head to the very bottoms of my feet. I need two

"scratching machines," or the itching would craze me. You will say, get a bee-hat; I have a good one, but if my nose gets too close they will strike through, and are sure to hit me. They have stung me twice through kid gloves, so I do not know what to do. If you can advise me as to any way so I and the bees can stay together and be friendly, I shall thank you.

[A good bee-veil would not permit the bees to get at your nose. One like the illustration is an excellent protection. Kid gloves are not thick enough. You need rubber gloves. Carbonate of soda will generally antidote the bee-poison; hartshorn and salaratus water are also used to ad-



BEE-VEIL.

vantage. Pull out the stings and apply a strong solution of carbonate of soda to the wound before it closes up by swelling. To dissolve one-half tea-spoonful of the soda in a little water and drink it will often prevent swelling.

If this does not answer the purpose, dissolve a table-spoonful of salt in a half-goblet of vinegar, and make it tepid. Then apply it to the wound with a rag. An onion cut in two and gently rubbed on the wound will often prevent swelling. Crushed tomato leaves are used with good results for the same.

The reason why one remedy will not answer for all, is because of the ever-varying state of the human system, both as the result of internal and external causes.—ED.]

**Sweet Clover on the Roadside.**—Jno. A. Osborne, Rantoul, Ills., on July 1, 1887, writes:

I have been growing sweet clover along the road near my farm for five or six years, and I find it a great help to the bees in July and August, and I have never had any trouble about it until now. I have been mowing a swath along each side every year until now, and I would have mown it this year but the commissioner of highways hired a man to cut it all down a few days ago. Now I would like to know if you think I have a right to grow sweet clover along the road near my own farm, so long as it does not interfere with travel. It seems to me that I have a right to the

grass or whatever grows on my side of the road. The party on the opposite side of the road from my farm has a strip of ground 14 feet wide on what is supposed to be the right-of-way, planted in corn and oats, and I (nor any one else) have not complained of him, as the road is still wide enough. Have I any chance to get damage of the parties who cut the clover, or will I have to give up growing clover on the roadside?

[If the "commissioner of highways" hired a man to cut the weeds, etc., along the highways, you could have no case against the man who cut it "by authority." If it was a malicious act on the part of the commissioner, you might have a case, but we fear that might be difficult to prove. Your "rights" on the highway may not include using it for "pasturage" or for "raising garden truck" there. We do not know how the law reads on that subject, and prefer to leave that matter to the attorneys.—ED.]

**Bees doing Well.**—Samuel Jarvis, Fair Grove, Mich., on July 2, 1887, writes:

I have visited a half dozen apiaries, and I believe that bees are doing very well in this locality, and especially in increase. Four old colonies in my father's apiary sent out 12 swarms, beginning on June 3. We have some linden, but white clover is the main bee-forage. Red raspberry bloom is gone.

**Worked Well on Alsike.**—B. F. Conely, Brighton, Mich., on July 1, 1887, says:

I had 33 colonies, lost 3 in winter, and started the season with the remainder. My bees are doing very well, considering that there was no white clover honey. Fifteen colonies have cast swarms, but I will not let them swarm any more. I had four acres of Alsike clover, and the bees work well on it. I shall get about one ton of honey.

**Profusion of Basswood Bloom, etc.**—S. J. Youngman, Cato, Mich., on July 4, 1887, says:

There was only one rain in June, and the consequence is a profusion of white clover bloom, but no nectar. Alsike proved to be, as usual, all that could be expected, growing in some places, where mixed with timothy and the large clovers,  $2\frac{1}{2}$  feet in length. My colonies have gathered from 25 to 30 pounds each of choice, thick honey. Basswood bloom opened on June 30—the earliest known to bee-keepers here; there is a great profusion of the flowers, and a great yield of honey is expected, as the colonies are strong in numbers. It rained on July 2, 3, and 4, and other honey-plants will thrive.





Issued every Wednesday by  
**THOMAS G. NEWMAN & SON,**  
 PROPRIETORS,  
 923 & 925 WEST MADISON ST., CHICAGO ILL.  
 At One Dollar a Year.

**ALFRED H. NEWMAN,**  
 BUSINESS MANAGER.

## Special Notices.

**To Correspondents.**—It would save us much trouble, if all would be particular to give their P. O. address and name, when writing to this office. We have several letters (some inclosing money) that have no name; many others having no Post-Office, County or State. Also, if you live near one post-office and get your mail at another, be sure to give the address we have on our list.

As there is Another firm in Chicago by the name of "Newman & Son," we wish our correspondents would write "American Bee Journal" on the envelope when writing to this office. Several letters of ours have already gone to the other firm (a commission house), causing vexatious delay and trouble.

**We will Present Webster's Dictionary** (pocket edition), and send it by mail, postpaid, for two subscribers with \$2. It is always useful to have a dictionary at hand to decide as to the spelling of words, and to determine their meaning.

**Money Orders** can now be obtained at the Post Offices at reduced rates. Five dollars and under costs now only 5 cents. As these are absolutely safe, it will pay to get them instead of the Postal Notes which are payable to any one who presents them, and are in no way safe.

**Red Labels** for one-pound pails of honey, size 3x4½ inches.—We have now gotten up a lot of these Labels, and can supply them at the following prices: 100 for \$1.00; 250 for \$1.50; 500 for \$2.00; 1,000 for \$3.00; all with name and address of apiarist printed on them—by mail, postpaid.

**Do you Want a Farm Account Book?** We have a few left, and make you a very tempting offer. It contains 166 pages, is printed on writing paper, ruled and bound, and the price is \$3. We will club it and the Weekly BEE JOURNAL for a year and give you both for \$2. If you want it sent by mail, add 20 cents for postage.

**Yucca Brushes** are employed for removing bees from the combs. They are a soft, vegetable fiber, and do not irritate the bees. As each separate fiber extends the whole length of the handle as well as the brush, they are almost indestructible. When they become sticky with honey, they can be washed, and when dry, are as good as ever. The low price at which they are sold, enables any bee-keeper to have six or more of them, so as to always have one handy. We can supply them at 5 cents each, or 50 cents a dozen; if sent by mail, add 1 cent each for postage.

**By Using the Binder** made expressly for this BEE JOURNAL, all can have them bound and ready for examination every day in the year. We have reduced the price to 60 cents, postpaid. Subscription for one year and the binder for \$1.50.

**We Supply Chapman Honey-Plant seed** at the following prices: One-half ounce, 50 cents; 1 ounce, \$1; 2 ounces, \$1.50; 4 ounces, \$2; ½ pound, \$3; 1 pound, \$5. One pound of seed is sufficient for half an acre, if properly thinned out and re-set.

**Enameled Cloth** for covering frames, price per yard, 45 inches wide, 20 cents; if a whole piece of 12 yards is taken, \$2.25; 10 pieces, \$20.00; if ordered by mail, send 15 cents per yard extra for postage.

**Where to Keep Honey** is the title of Leaflet No. 3. For prices see the second page of this paper. If you wish to see a sample of it before purchasing, send for it.

**We pay 20 cents per pound**, delivered here, for good Yellow Beeswax. To avoid mistakes, the shipper's name should always be on each package.

**Sample Copies** of the BEE JOURNAL will be sent FREE upon application. Any one intending to get up a club can have sample copies sent to the persons they desire to interview, by sending the names to this office, or we will send them all to the agent.

**Simmins' Non-Swarming System** is the title of a new English bee-book. The author claims that it will inaugurate a "new era in modern bee-keeping," and states that "it is based upon purely natural principles, and is the only system that can ever be relied upon, because no other condition exists in the economy of the hive that can be applied to bring about the desired result—a total absence of any desire to swarm." It contains 64 pages; is well printed and illustrated. Price 50 cents. It can now be obtained at this office.

**E. Duncan Sniffen**, Advertising Agent, 3 Park Row, New York, inserts advertisements in all first-class Newspapers and Magazines with more promptness and at lower prices than can be obtained elsewhere. He gives special attention to writing and setting up advertisements in the most attractive manner, and guarantees entire satisfaction. In all his dealings, he is honorable and prompt. Send for his Catalogue of first-class advertising mediums. Mailed free. 52A40t

**Sweet Clover**, (*Melilotus alba*), furnishes the most reliable crop of honey from July until frost, and at the same time it furnishes the most delicious honey, light in color, and thick in body. It may be sown in waste places, fence corners, or on the roadside. Sow two years running, on the same land, and the honey crop will be without intermission. Money invested in Sweet Clover Seed will prove a good investment. The Seed may be obtained at this office at the following prices: \$6.00 per bushel (90 lbs.); \$1.75 per peck, or 20 cents per pound.

**The Western World Guide and Hand-Book of Useful Information**, contains the greatest amount of useful information ever put together in such a cheap form. The printing, paper, and binding are excellent, and the book is well worth a dollar. To any one sending us two new subscribers besides his own, with \$3.00, for one year, we will present a copy of this valuable book.

**Colored Posters** for putting up over honey exhibits at Fairs are quite attractive, as well as useful. We have prepared some for the BEE JOURNAL, and will send two or more free of cost to any one who will use them, and try to get up a club.

**One Dollar** invested for the weekly visits of the AMERICAN BEE JOURNAL for a year, will richly repay every apiarist in America.

**We have a large quantity of CHOICE WHITE EXTRACTED HONEY**, in kegs holding from 200 lbs. to 225 lbs. each, which we will deliver on board the cars at 8 cents per lb. Orders solicited.

**Bee-Keepers**, write to the Hub Mfg. Co., New Hampton, Iowa, and learn how to free your honey-houses from Bees, Flies, etc., for 8½ cents per window. "A patent attachment for any window." 26A2t

## Advertisements.

**TESTED QUEENS, \$1.**—Bees, Supplies, etc. See Foster's adv't. on page 432. 28A1f

**BY Return Mail.**—Italian Queens, Tested, \$1; Untested, 60c. Bees per lb., 50c. 26A1f **GEO. STUCKMAN**, Nappanee, Ind.

**ITALIAN Bees and Queens** for sale.—Untested Queen, 75 cents; 6 for \$4.00. Send for Circular, Free.—**JOHN NEBEL & SON**, High Hill, Mo. 23A2t

**Dadant's Foundation Factory**, wholesale and retail. See advertisement in another column.

**10 SIMPLICITY**—frame hive of Italian Bees, \$5.00; 2-frame Nucleus, \$1.50; 3-frame Nucleus \$2.00. Tested Italian Queen, \$1.25; one Untested (young laying) Italian Queen, 75 cts; two or more, 70 cts. each. BEES by the lb., same price as untested Queens. Can send by return Mail or Express. Address, **OTTO KLEINOW**. 28A1t (opp. Ft. Wayne Gate), DETROIT, MICH.

## NUCLEI! NUCLEI!

**I HAVE** 200, and they must go, so the price will be only \$2.25 for 2 Langstroth Frames of Brood; plenty of bees and a beautiful Tested Italian Queen. Untested Queens, 25 cents less.

**JOHN A. HUCHANAN**,  
 HOLLIDAY'S COVE, Hancock Co., W. VA.

## BEES and HONEY,

OR THE

Management of an Apiary for Pleasure  
and Profit; by

**THOMAS G. NEWMAN,**  
Editor of the American Bee Journal.

It contains 220 profusely illustrated pages is "fully up with the times" in all the improvements and inventions in this rapidly developing pursuit, and presents the apiarist with everything that can aid in the successful management of the honey-bee, and at the same time produce the most money in its best and most attractive condition. Bound in cloth, \$1.00, postpaid.

**A Liberal Discount to Dealers, by the Dozen or Hundred.**

**THOS. G. NEWMAN & SON,**  
923 & 925 West Madison St., CHICAGO, ILL.

## BEE-KEEPERS' GUIDE;

OR, MANUAL OF THE APIARY.

13,000 SOLD SINCE 1876.

5,000 Sold Since May, 1888.

More than 50 pages, and more than 50 fine illustrations were added in the 8th edition. The whole work has been thoroughly revised, and contains the very latest in respect to bee-keeping. It is certainly the fullest and most scientific work treating of bees in the World. Price, by mail, \$1.25. Liberal discount to dealers and to clubs.

**A. J. COOK,** Author and Publisher,  
1A1y Agricultural College, Mich.

## Patent Flat-Bottom Comb Foundation



High Side Walls, 4 to 14 square feet to the pound. Wholesale and Retail. Circulars and Samples free

**J. VAN DEUSEN & SONS,**  
(SOLE MANUFACTURERS),

1A1f SPROUT BROOK, Mont. Co., N. Y.

## NEW ONE-POUND HONEY PAIL.



**THIS** new size of our Tapering Honey Pails is of uniform design with the other sizes, having the top edge turned over, and has a bail or handle,—making it very convenient to carry. It is well-made and, when filled with honey, makes a novel and attractive small package, that can be sold for 20 cents or less. Many consumers will buy it in order to give the children a handsome toy pail. **PRICE, 75 cents per dozen, or \$5.00 per 100.**

**THOS. G. NEWMAN & SON,**  
923 & 925 West Madison Street, CHICAGO, ILL.

**Dadant's Foundation Factory, wholesale and retail.** See advertisement in another column.

**UNTESTED Italian Queens.**—Single Queen, 65 cts.; 5 for \$3.00; 12 for \$6.50. **BEES** per lb., same price as Queens.  
26A1f **I. R. GOOD,** Nappanee, Ind.

## "Boss" One-Piece Sections,

MANUFACTURED BY

**J. Forncrook & Co., Watertown, Wis.**



Patented June 28, 1881.

**WE** will furnish you **SECTIONS** as cheap as the cheapest. Write for price-list.  
Watertown, Wis., May 1st, 1887.

**Thos. G. Newman & Son, of Chicago, sell the one-piece Sections manufactured by us.**

**Dadant's Foundation Factory, wholesale and retail.** See advertisement in another column.

## W. Z. HUTCHINSON,

Rogersville, Genesee Co., Mich.

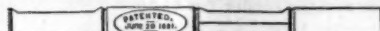
**HAS** published a neat little book of 45 pages, entitled: **THE PRODUCTION OF COMB HONEY.** In which, from the time of building up colonies in the spring, to the removal of the honey from the hives, the problem of securing the most first-class honey with the least expenditure of capital and labor, is clearly explained; the author carefully outlining the system that he believes to be best, and giving reasons for his belief. **Price of the Book, 25 cents. Stamps taken**—either U. S. or Canadian.

**FINE ITALIAN QUEENS,** reared from the best, selected, tested imported mother, \$1.00 each, by return mail.  
28A1f

## "Boss" One-Piece Sections,

MANUFACTURED BY

**J. Forncrook & Co., Watertown, Wis**



Patented June 28, 1881.

**WE** will furnish you **SECTIONS** as cheap as the cheapest. Write for price-list.  
Watertown, Wis., May 1st, 1887.

## BY RETURN MAIL!

**SIX** Warranted Italian Queens..... \$5 00  
**Fourteen** Warranted Italian Queens..... 10 00  
Safe arrival guaranteed.  
26A1f **H. ALLEY,** Wenham, Mass.

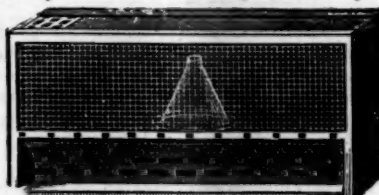
## Extra Thin FOUNDATION

In 25-Pound Boxes.

**WE CAN** now furnish **VAN DEUSEN'S** Extra-Thin Flat-Bottom Foundation put up in 25-lb. Boxes, in sheets 16½x28 inches, at \$12.50 per box. 12 ft. to the lb. The above is a special offer, and is a Bargain to all who can use that quantity. All orders for any other quantity than exactly 25 lbs. (or its multiple) will be filled at the regular price—60 cents per lb.

**THOS. G. NEWMAN & SON.,**  
923 & 925 W. Madison St., CHICAGO, ILL.

## Alley's Drone and Queen Trap.



Price, by Express, 50 cts.; by mail, 65 cts.; 12 in the flat, and one mailed (15 in all), \$3.50; 50, in the flat, \$12.00. Address.

**THOS. G. NEWMAN & SON,**  
923 & 925 West Madison St., CHICAGO, ILL.

## THE BRITISH BEE JOURNAL

AND BEE-KEEPER'S ADVISER.

**IS** published every week, at 10s. 10d. per annum. It contains the best practical information for the apiarist. It is edited by Thomas Wm. Cowan, F.G.S., F.R.M.S., etc., and published by John Huokle, King's Langley, Herts, England.

**Send 75 Cents** for my New Book—"A Year among the Bees!"  
114 pages, cloth bound. Address.

**DR. C. C. MILLER,**  
20A1f MARENGO, ILLS.

## HOW TO WINTER BEES,

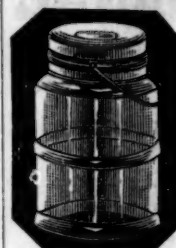
**ELEVEN** Essays by eleven prominent bee-keepers, sent to all who apply.  
Address, **HENRY ALLEY,**  
11A1f Wenham, Mass.

## STILL LOWER.

**TESTED** Italian Queens..... \$1 00  
**Untested** Italian Queens..... 90  
Bred from Imported Mothers.  
Address, **C. WEEKS,**  
28A3t CLIFTON, TENN.

## GLASS PAILS

FOR HONEY.



**THESE** Pails are made of the best quality of clear flint glass, with a bail and a metal top and cover. When filled with honey, the attractive appearance of these pails cannot be equaled by any other style of package. They can be used for household purposes by consumers, after the honey is removed, or they can be returned to and re-filled by the apiarist.

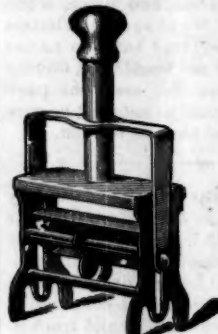
Prices are as follows:

To hold 1 pound of honey, per dozen, ..... \$1.40  
2 pounds " " " " ..... 2.00  
3 " " " " ..... 2.50

**THOMAS G. NEWMAN & SON,**  
923 & 925 West Madison St., CHICAGO, ILL.

## SELF-INKING RUBBER-STAMP.

2,000



Impressions for 10 cts. Will last a life-time. Everybody needs one. It prints indelibly Envelopes, Letter heads, Postal Cards, Wrapping-paper, Bags, Sections, Crates, Cartons, Bedding, Robes, Clothing—everything. Your name, occupation and address, with the machine complete, sent free by mail, for \$1.00 P. O. Money Order. Extra ½-oz. bottles of ink for 12c. in stamps. Address.

**GEO. T. HAMMOND,**  
Brookport,  
Monroe Co., New York  
26E1f

## BEES for SALE, Cheap.

**100 Colonies** of American-reared Italian Bees, best strain, strong, and in 10-frame wired Simplicity hives; for sale **CHEAP.** Address, **Z. A. CLARK,**  
8E1f ARKADAPHLIA, ARK.

**HURRAH** for the Fair!—Exhibit and extend your reputation and develop the home market by using our brilliant Chromo Card; 8 colors, full of instruction and amusement. I have a valuable strain Italian Queens.—J.H. Martin, Hartford, N.Y.  
6W(3tm)40t

## The NEW Heddon Hive.

**We** have made arrangements with the inventor by which we shall make and sell the Heddon Reversible Hive, both at wholesale and retail; mailed and also in the flat.

The brood-chamber is in two sections; also the surplus arrangement, which may be interchanged or inverted at will. The cover, bottom-board, and top and bottom of each sectional case has one-half of a regular bee-space, so that the surplus cases with the sections, may be placed between the two brood-chambers, or the latter may be transposed or inverted—in fact, all parts of this hive are perfectly interchangeable. The brood-frames will ALL be bored for wires.

**A SAMPLE HIVE** includes the bottom-board and stand; a slatted honey-board, and cover; two 6-inch brood-chambers, each containing 8 frames; two surplus arrangements, each containing 28 one-pound sections, one with wide frames and separators, and the other without separators. This latter chamber can be interchanged with the other stories, but cannot be reversed. It is **PAINTED** and ready for immediate use. Price \$4.00, complete.

**THOMAS G. NEWMAN & SON,**  
923 & 925 West Madison St., CHICAGO, ILL.